

# 3.9 Average length of stay for hip fracture patients aged 65 years and over, major and large public hospitals, 2012–13

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# 3.9 Average length of stay for hip fracture patients aged 65 years and over, major and large public hospitals, 2012–13

## Identifying and definitional attributes

<b>Metadata item type:</b>	Indicator
<b>Indicator type:</b>	Indicator
<b>Short name:</b>	Hip fracture average length of stay in hospital by peer group, 65 years and over, 2012-13
<b>Synonymous names:</b>	ALOS fractured hip
<b>METEOR identifier:</b>	601268
<b>Registration status:</b>	<a href="#">National Health Performance Authority (retired)</a> , Retired 01/07/2016 <a href="#">Australian Commission on Safety and Quality in Health Care</a> , Standard 23/11/2016
<b>Description:</b>	Average (mean) length of stay (number of days) for multi-day stay hip fracture patients aged 65 years and over, major and large public hospitals, 2012–13
<b>Indicator set:</b>	<a href="#">Australian Atlas of Healthcare Variation</a> <a href="#">National Health Performance Authority (retired)</a> , Retired 01/07/2016 <a href="#">Australian Commission on Safety and Quality in Health Care</a> , Standard 23/11/2016

## Collection and usage attributes

<b>Population group age from:</b>	65 years and over
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**Computation description:** Presented as the average number of days, by hospital

Only hospitals in the major and large peer groups and which had at least 10 separations were included in the analysis. For more information about these peer groups see </content/index.phtml/itemId/584666>

To calculate the average length of stay the key unit that records information about a patient's stay in hospital is called an 'episode of admitted patient care'. This records information about the patient and the care they received in hospital, including:

- Sex
- Diagnosis
- Procedure type
- Date of admission and
- Date of separation/discharge.

**Exclusions:**

The average length of stay indicator relates only to acute patients with a multi-day, or overnight, stay. The following episodes of care are excluded from all reported measures:

- Same day episodes, i.e. patients admitted and discharged on the same day
- Episodes for non-acute care
- Episodes where the patient died
- Episodes where the patient transferred to another facility within 2 days.

**Outlier removal:**

Episodes determined to be extreme long stay outliers were removed. Outlier bounds are derived for each AR-DRG. The method selected for deriving national level outlier bounds uses the inter-quartile ranges as the guide for outlier exclusion. The method of detecting extreme outliers (mEO) is as follows:

$$mEO = Q_3 + k*(Q_3-Q_1)$$

Where

Q<sub>1</sub> equals the 25<sup>th</sup> percentile value

Q<sub>3</sub> equals the 75<sup>th</sup> percentile value

k equals non-negative values of a constant.

Sensitivity analysis was conducted to identify k and resulted in k=10 being selected.

**Computation:** Numerator ÷ denominator

**Numerator:** Number of overnight bed days at major and large public hospitals attributable to hip fracture in patients aged 65 years and over.

**Numerator data elements:** **Data Element / Data Set**

[Episode of admitted patient care—length of stay \(excluding leave days\), total N\[NN\]](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**NMDS / DSS**

[Admitted patient care NMDS 2012-13](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—date of birth, DDMMYYYY](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**NMDS / DSS**

[Admitted patient care NMDS 2012-13](#)

**Guide for use**

Data source type: Administrative by-product data

Used to calculate 65 years and over age group.

**Data Element / Data Set**

[Episode of care—additional diagnosis, code \(ICD-10-AM 7th edn\) ANN{,N\[N\]}](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**NMDS / DSS**

[Admitted patient care NMDS 2012-13](#)

**Guide for use**

**Inclusion codes for Principal and Additional diagnosis:**

ICD-10-AM (7th edn) code	Description
S72.00	Fracture of neck of femur, part unspecified
S72.01	Fracture of intracapsular section of femur.
S72.02	Fracture of upper epiphysis (separation) of femur
S72.03	Fracture of subcapital section of femur
S72.04	Fracture of midcervical section of femur
S72.05	Fracture of base of neck of femur
S72.08	Fracture of other parts of neck of femur
S72.10	Fracture of trochanteric section of femur, unspecified
S72.11	Fracture of intertrochanteric section of femur
S72.2	Subtrochanteric fracture

Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 7th edn\) ANN{,N\[N\]}](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**NMDS / DSS**

**Denominator:**

Number of multi-day stays in hospital for people aged 65 years and over attributable to a fractured hip for a major or large public hospital.

**Denominator data elements:**

**Data Element / Data Set**

[Episode of care—additional diagnosis, code \(ICD-10-AM 7th edn\) ANN{,N\[N\]}](#)

**Guide for use**

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Data source type: Administrative by-product data

**Data Element / Data Set**

[Episode of care—principal diagnosis, code \(ICD-10-AM 7th edn\) ANN{,N\[N\]}](#)

**NMDS / DSS**

[Admitted patient care NMDS 2012-13](#)

**Disaggregation:**

Disaggregation is by:

- Australian public hospital
- Hospital peer group (major and large only). For more information about the hospital peer groups used see [/content/index.phtml/itemId/584666](#)

**Disaggregation data elements:**

**Data Element / Data Set**

[Establishment—organisation identifier \(state/territory\), NNNNN](#)

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**NMDS / DSS**

[Admitted patient care NMDS 2012-13](#)

**Guide for use**

Data source type: Administrative by-product data

Used for disaggregation by public hospital

**Data Element / Data Set**

[Hospital—hospital peer group, modified code N](#)

## Representational attributes

**Representation class:** Mean (average)  
**Data type:** Time period  
**Unit of measure:** Time (e.g. days, hours)  
**Format:** Days, rounded to 1dp

## Data source attributes

**Data sources:**

**Data Source**

[National Hospital Morbidity Database \(NHMD\)](#)

**Frequency**

Annual

**Data custodian**

Australian Institute of Health and Welfare

## Accountability attributes

**Reporting requirements:** Australian Commission of Safety and Quality in Health Care's Atlas of Healthcare Variation, released November 2015  
**Organisation responsible for providing data:** Australian Institute of Health and Welfare  
**Accountability:** Australian Commission of Safety and Quality in Health Care

## Source and reference attributes

**Submitting organisation:** National Health Performance Authority